Seattle Resilience Workshop

October 13, 2016

Workshop Report

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Client: 100 Resilient Cities, Pioneered by the Rockefeller Foundation

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Executive Summary

Seattle is known for its exceptional quality of life and rapidly growing economy. But prosperity is not shared equally and disparities exist in income, housing choice, transportation and even life expectancy. Surrounded by mountains and large bodies of water, Seattle's beautiful natural setting also creates some of its greatest risks. The city sits on and is near several seismic faults that have historically been the epicenter of catastrophic earthquakes. It relies on the abundant fall and winter rain and snow pack in the nearby Cascade Mountains to provide safe drinking water and affordable, clean hydroelectric power, however, climate change will impact these resources. Climate change also increases the risk of serious flooding. Some of the neighborhoods at greatest seismic risk are also those with the greatest risk of increased flooding, and many of these neighborhoods include a higher population of people of color and lower income residents.

The workshop is the first step in the resilience strategy development process, which will involve a holistic systems-based resilience assessment focused on the relationship between inequity and threats.

The Seattle Resilience Workshop was held on October 13, 2016, and hosted by the City of Seattle in partnership with 100 Resilient Cities. The workshop brought together 100 stakeholders from 65 organizations across a wide range of sectors to discuss the critical issues to be considered in developing a resilience strategy for the city. Stakeholders included representatives from:

- Local government,

- Community-based organizations and advisory bodies,

- State government agencies,

- Private sector companies including infrastructure, financial and insurance institutions,

- Emergency, health, housing, and community service providers, and

- Academia.

Multiple other stakeholders, including representatives from Indigenous groups and artists were invited but were not able to attend. There will be an effort throughout the next phases of the project to gather feedback from stakeholders representing a wide range of sectors.

The Workshop will be a key information source for the Chief Resilience Officer. The objectives of the workshop were to begin to:

- Establish a shared understanding of resilience, the 100RC initiative and support towards building a Resilience Strategy.

- Establish a strong and clear foundation for the resilience strategy process.

- Identify how the resilience Strategy can help stakeholders to address their existing priorities.

- Identify key stakeholders who need to be involved in the development of Seattle's resilience strategy.

- Introduce the concept and role of the Chief Resilience Officer for the City of Seattle.

The Mayor opened the workshop with his vision for the resilience strategy as a collaborative process centered on race and social justice which will ensure the diverse voices of Seattle's community guide the strategy development. The workshop generated wide-ranging discussions on the current state of Seattle, resilience work underway, and priorities for moving forward. Participants reflected a diverse range of interests including human services, health, environment, race and social justice, clean technology, the

arts, elders, and economic development. The breadth of perspectives participants brought to the conversation resulted in a deeper understanding of the strengths and weaknesses of the complex urban systems critical to resilience. The group acknowledged many strengths of the city such as economic prosperity, health and well-being, and environmental quality, but also recognized that across the city there is significant disparity in who is benefiting or burdened by Seattle's progress.

Participants were enthusiastic about the challenge of creating a resilience strategy and opportunities to work together on a city-wide scale. The 100RC program was recognized as an opportunity for collaboration to bring together existing resilience efforts in Seattle. When defining resilience, common themes included:

- Ability to bounce back and thrive after a shock;

- Capacity and flexibility to prepare for the unexpected;

- Capacity to adapt to rapid change; and

- Proactive and inclusive planning.

The top three shocks were identified by workshop participants as earthquakes, infrastructure failure, and flooding. The top three stressors were identified as racial and social injustice, aging and over-burdened infrastructure; and unaffordable housing and homelessness.

Participants had the opportunity to develop actions collaboratively that could increase the city's future resilience. Action ideas included:

- Providing opportunities for the community to lead resilience planning and actions.

- Integrating green infrastructure, affordable housing, climate preparedness, and local family-wage jobs into capital investments.

- Creating apprenticeships and training in the clean energy industry, especially for lower income residents and people of color.

- Planning for disasters in way that is inclusive and culturally appropriate.

- Building social cohesion.

The workshop also highlighted some of the current resilience work happening in the community. A series of videos highlighted ways resilience is already being strengthened throughout the city including a social justice-oriented dance program for youth, a program advancing food justice and educating youth about healthy eating, and the need for small local businesses to prepare for shocks such as earthquakes.

The support offered by 100RC offers Seattle an opportunity to protect its future and leverage the resilience work already happening. The workshop was an important first step towards developing this strategy. It is important to note that while a wide range of stakeholders participated in the workshop, the diversity of Seattle's community was not adequately represented and a priority must be placed on creating an equitable and community-driven process as the strategy development moves forward.

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1.0   Introduction

In 2016, Seattle was selected during the final wave of cities to join the 100 Resilient Cities (100RC) network.100RC enables cities around the world to better address shocks and stresses and to increase the resilience of these cities in response to the physical, social and economic challenges of the 21st century. The Resilience Workshop is the first step in the 100RC Program process. This report provides a summary of the outcomes of the Seattle Resilience Workshop, hosted by 100RC in partnership with the City of Seattle on October 13, 2016.

The workshop was organized and delivered by AECOM as Strategy Partner and brought together 100 stakeholders from 65 organizations across a wide range of sectors to discuss the critical issues to be considered in preparing a resilience strategy for the City of Seattle.

The workshop was attended by key stakeholders representing:

- Local government,

- Community-based organizations and advisory bodies,

- State government agencies,

- Private sector companies including infrastructure, financial and insurance institutions,

- Emergency, health, housing, and community service providers, and

- Academia.

Multiple other stakeholders, including representatives from Indigenous groups and artists were invited but were not able to attend. There will be an effort throughout the next phases of the project to involve stakeholders representing a wide range of sectors.

1.1   Workshop Report

This report summarizes the outcomes of the Seattle Resilience Workshop and identifies key resilience opportunities for the city. The workshop provided extensive input from a large, diverse and highly interested group of participants, and their contribution is acknowledged. The report is structured as follows:

- Section 2: City Profile

- Section 3: Resilience Case Study

- Section 4: Summary and Assessment of the Workshop

- Section 5: Resilience Narrative for the City

- Section 6: Preliminary Overview of Plans, Studies, and Initiatives

- Section 7: Priority Stakeholder Recommendations and Engagement

- Section 8: Additional Insights and Resilience Opportunities

- Section 9: Next Steps

- Section 10: Conclusion

Appendices are used to ensure the main reports remains concise, and they include:

- Appendix A: Workshop Reporting Forms

- Appendix B: Resilience Case Study

- Appendix C: Final Master Stakeholder List

- Appendix D: Final Work Plan

- Appendix E: Results of Interactive Sessions

- Appendix F: In-Workshop Live Poll Results

- Appendix G: Final Workshop Materials

- Appendix H: City Resilience Framework (CRF)

- Appendix I: Interactive Poster Results

2.0   City Profile

Seattle is known for its exceptional quality of life and rapidly growing economy. But prosperity is not shared equally and disparities exist in income, housing choice, transportation and even life expectancy. Surrounded by mountains and large bodies of water, Seattle's beautiful natural setting also creates some of its greatest risks. The city sits on and is near several seismic faults that have historically been the epicenter of catastrophic earthquakes. It relies on the abundant fall and winter rain and snow pack in the nearby Cascade Mountains to provide safe drinking water and affordable, clean hydroelectric power, however, climate change will impact these resources. Climate change also increases the risk of serious flooding. Some of the neighborhoods at greatest seismic risk are also those with the greatest risk of increased flooding, and many of these neighborhoods include a higher population of people of color and lower income residents.

The workshop is the first step in the resilience strategy development process, which will involve a holistic systems-based resilience assessment and strategy development process.

2.1   Geography and Location

Seattle is approximately 100 miles south of the Canada-US border. The city is bounded by Puget Sound on the west and Lake Washington to the east beyond which lie the Olympic Mountains and the volcanoes and glaciers of the Cascade Range. The topography of Seattle is hilly. The city is developed with numerous single family neighborhoods anchored by neighborhood business districts. The downtown core which overlooks Elliott Bay on the Puget Sound includes the iconic Space Needle, and Seattle's famous Pike Place Market along with many high-rise office towers.

2.2   Governance and Leadership

Seattle is led by Mayor Ed Murray and a 9-member City Council representing seven geographic districts and two at-large positions. Seattle's growth is guided by its newly adopted Comprehensive Plan, a 20-year vision and roadmap for Seattle's future. Consistent with Washington's statewide Growth Management Act and county and regional planning, this plan guides City decisions on where to create new jobs and build houses, how to improve the transportation system, and where to make capital investments, providing the framework for most of Seattle's big-picture decisions on how to grow while preserving and improving neighborhoods. The four core values of Seattle's Comprehensive Plan are: Community, Environmental Stewardship, Economic Opportunity and Security, and Social Equity.

The City recently launched an initiative, called the Equity & Environment Initiative (EEI), to advance environmental justice across Seattle's people of color, immigrants, youth, and limited-proficient English speaking individuals. By improving access to government, building capacity with people of color, exploring opportunities for environmental actions to build community wealth, and improving capacity of city staff to work with communities to advance economic and racial equity, the EEI proactively builds cross-sector relationships and promotes equitable representation in mapping the city's path forward.

2.3   Population

Seattle is the largest city in the state of Washington, with an estimated population of 686,800 (Office of Planning and Community Development, 2016). It is part of a large metropolitan area which includes the neighboring cities, Bellevue and Tacoma, and has an estimated population of 3.7 million (US Census Bureau, 2015). Seattle is one of the fastest-growing cities in North America; it grew by 2.3 percent between 2014 and 2015, ranking fourth for growth among the 50 largest U.S. cities (U.S. Census, 2016). The city is projected to grow by approximately 47,000 households and 84,000 jobs by 2024 (Office of Planning and Community Development, 2016).

The 2010 Census indicates that the largest racial group in Seattle is White (69 percent of the city's

population). The next largest group is Asian (14 percent), followed by Black or African American (8 percent).

2.4   Housing

From 2010 to 2015, Seattle has seen an average growth rate of 40 people and 35 new jobs per day. But housing construction has not kept up - the city has only had a net increase of 12 units per day (The Northwest Urbanist, 2016). Citizens are competing for scarce housing opportunities, and availability of affordable housing is a severe and growing challenge for Seattle, as the city has become prohibitively expensive for many.

Housing is considered affordable to a household if it costs no more than 30% of a household's income. Over 45,000 Seattle lower-income families spend more than half their income on housing (Seattle HALA, 2016). Average rent for apartments built in Seattle before 2006 increased 49 percent in the last five years. Even with a new $15 minimum wage, the average rent for a one-bedroom apartment is out of reach for a single household minimum wage worker.

Seattle has developed the Housing Affordability and Livability Agenda (HALA) to produce both market-rate and guaranteed affordable housing. Seattle's goal is to add over 30,000 market-rate units and over 20,000 affordable units by 2024 (Seattle HALA, 2016). Most programs proposed as part of Seattle's HALA are targeted at serving households with incomes up to 30 percent, 60 percent, or 80 percent of area medium income (AMI). Seattle's AMI in 2015 is $80,349.

The City of Seattle is also committed to addressing the homelessness crisis. 2,942 people are living without shelter in Seattle. To address this, each year the Human Services Department (HSD) spends $40.84 million to assist single adults, youth, young adults, and families, survivors of domestic violence, older adults and veterans who are currently at-risk of or experiencing homelessness (Seattle HSD, 2016).

2.5   Economy and Employment

Over the past several years, Seattle's booming innovation economy has generated large numbers of relatively high paying jobs, resulting in a dramatic increase in average incomes. Between 2014 and 2015, the US Census reports that the median household income increased in Seattle by almost $10,000 to $80,349; and while this is still lower than the median income in cities like San Francisco or San Jose, it now represents one of the highest median incomes of any major US city.

Although Seattle is known for its innovative and dynamic economy, along with other major cities it suffers from a history of systemic racism resulting in the disproportionate distribution of the benefits and burdens of its progress. Recent estimates show continued, deep disparities in the social and economic well-being of Seattle residents. Incomes gains were not across the board, as earnings for Hispanics stalled at around $49,000. Seattle also has one of the lowest median incomes for black households among major U.S. cities, with a median income of $37,000.

Disparities by race and ethnicity show up in every major indicator of well-being measured in the ACS: education, income, unemployment rates, homeownership, housing costs burdens, vehicle availability, and others. In general, the largest disparities in Seattle, as well as in the nation as a whole, are for the Black and Hispanic / Latino populations compared with White, non-Hispanic population. Asians and multi-race persons are also doing more poorly than non-Hispanic Whites on many of these indicators.

2.6   Infrastructure and Transportation

The 2013 Report Card for Washington's Infrastructure found that local infrastructure earned a cumulative Grade Point Average of C. The report concludes that while Washington has many types of infrastructure and many great facilities across the state, a lack of planned and guaranteed funding and inadequate maintenance are reported across all nine categories — Aviation, Bridges, Dams, Drinking Water, Rail, Roads, Schools, Solid and Hazardous Waste, and Transit. Similarly, Seattle's aging infrastructure is need of investment to meet current and future needs. Seattle continues to be the 4th fastest-growing large city in America and the

transportation system is inadequate to meet the needs of a larger population. Compared to other big cities worldwide, Seattle's transportation infrastructure ranks among the bottom for overall congestion levels (TomTom Traffic Index 2016).

Although nearly all of Seattle's population (97.5 percent) lives within ¼ mile of a transit stop with some level of service, the workshop identified transportation affordability and reliability as a problem. With the exception of limited light-rail, public transportation is via buses, which are subject to the congestion mentioned above. The Puget Sound region is making significant investments to expand the light rail system, investing nearly $1 billion over the next few decades to improve transportation options. Additionally, Mayor Murray initiated the Move Seattle program, which is a 10 year strategic vision for transportation. The 9-year, $930 million Levy to Move Seattle, which was approved by voters in November 2015, provides funding to improve safety for all travelers, maintain our streets and bridges, and invest in reliable, affordable travel options for a growing city.

3.0   Resilience Case Study for the City

3.1   Equity and Environment Initiative (EEI)

Introduction
A resilience case study is provided as part of the workshop to highlight how Seattle is responding to some of its known shocks and stressors. Impacts from many of the shocks and stressors identified for Seattle will fall hardest on the communities of color and lower income residents, who are historically over-burdened and under-resourced. The city launched the Equity & Environment Initiative (EEI) in 2015 to advance environmental justice in partnership with Seattle's communities of color, immigrants, refugees, youth, and limited-proficient English speaking individuals. The EEI is designed to improve access to government, build capacity with communities of color, explore opportunities for environmental actions to build community wealth, and improve capacity of city staff to work with communities to ensure economic and racial equity along with environmental benefits. The EEI proactively builds cross-sector relationships and works to increase trust between government and community. The work will enhance resilience among all of Seattle's residents including people of color and lower income residents who face disproportionate risk from the range of shocks and stresses.

Stressor
Through efforts to reduce pollution, cut energy consumption, and invest in public transportation, Seattle has long been a leader in improving environmental quality. However, within the city, disparities in access to healthy environments are an historic and growing problem. Many of the neighborhoods where Seattle communities of color, immigrants, refugees, and low income residents tend to live are near industry and highways. For instance, 58% of the population within a mile of the Lower Duwamish Waterway Superfund site are people of color. Close proximity to these hazardous sites exposes residents to toxins such as lead, poor indoor and outdoor air quality, diesel exhaust, noise pollution, litter, illegal dumping. These neighborhoods are also characterized by a inadequate green space, and limited access to healthy food. Communities also tend to have less access to health care due to issues such as affordability, transportation, or cultural disconnect from heath care services. Several studies have reported increased sensitivity to pollution for communities with low income levels, low education levels and other biological and social factors. This cumulative impact of pollution and socio-economic conditions can result in significantly poorer health outcomes, lack of community cohesion and environmental challenges.

Disproportionate access and systemic inequities in government practices has also perpetuated challenges and a lack of trust in government. As is true throughout the U.S., it is primarily white, upper-income communities that shape and benefit from environmental policies, approaches, and outcomes. Meanwhile, those who are most affected by environmental injustices have little means to join the effort to create solutions or ensure their communities also receive the benefits.

Response
In April 2015, Mayor Ed Murray launched the Equity & Environment Initiative (EEI), a program to address some of the city's longest standing environmental injustices by committing to the following three primary objectives:

- All people and communities should benefit from Seattle's environmental progress;

- Communities most affected e by environmental injustice are engaged in setting priorities, designing strategies, and tracking progress; and

- People of color, immigrants, refugees, people with low income, and limited-English proficiency individuals should have opportunities to be part of and leaders in the mainstream environmental movement.

A Community Partners Steering Committee (CPSC), made up of individuals/organizations that have deep connections to communities of color, was convened to ensure that those most affected by environmental

inequalities would lead in creating the solutions. The CPSC engaged more than 800 people from communities of color, immigrants, refugees, low incomes, youth, limited-English proficiency individuals, and historically white-led environmental organizations to create a community-centric action plan that guides the EEI.

In April 2016, the CPSC and Seattle's Mayor released the shared community-city Equity & Environment Agenda. The Agenda provides goals and strategies to serve as a roadmap for sectors to work together in advancing environmental justice throughout Seattle. The Agenda outlines action items to advance environmental equity centered on four priority areas:

- Healthy Environments for All

- Jobs, Local Economies, and Youth Pathways

- Equity in City Environmental Programs

- Environmental Narrative and Community Leadership

Since release of the EEI Agenda, several immediate actions have been taken by the City:

- A resolution passed by the City Council to adopt the four goal areas of the Agenda as priorities for all departments and core beliefs of Seattle's approach to sustainability and the environment.

- Creation of a new Duwamish Valley program, to be coordinated by the Office of Sustainability & Environment and the Office of Community Planning & Development to specifically improve environmental, health and socio-economic conditions in partnership with the community and other government agencies.

- Extending opportunities to purchase low-cost fresh fruit and vegetable bags to all families enrolled in the Seattle Preschool Program who are below 300 percent of the federal poverty level.

- Partnering with Seattle's Drive Clean Initiative to ensure the benefits of transportation electrification accrue to those who are most-affected.

- Establishing an Environmental Justice Steering Committee, in partnership with the Department of Neighborhoods, to build on existing leadership programs and support communities of color owning and shaping environmental issues.

Implications for future resilience strategy
While inequity is currently one of the most significant stressors affecting Seattle, the proactive response of the City through creation of the EEI focuses on solutions that come from the communities themselves. By providing a framework that emphasizes community cohesion, leadership and civic engagement, the City has taken an unprecedented approach to begin moving the needle on environmental equity in Seattle. Solving issues of environmental justice simultaneously addresses resilience since environmental injustice or lack of benefits are usually creating or connected to other stressors.

Moving forward, the resilience strategy should advance the inter-disciplinary approach of the EE Agenda goals and strategies and leverage the Agenda as a model for addressing the other stressors the city faces such as housing affordability or access to healthcare, public safety and quality education through a framework that builds the power and influence of communities-most-affected.

Presentation slides for the Equity and Environment Initiative are included in **Appendix B**.

4.0   Summary and Assessment of Workshop

The Seattle Resilience Workshop is the first step in in the development of the resilience strategy for Seattle. Following the workshop, a Chief Resilience Officer (CRO) will be appointed for the City, who will lead the development of the City's resilience strategy and implementation. This report, which summarizes the outcomes of the workshop, will be a key information source for the CRO.

4.1   Workshop Objectives

The objectives of the workshop were to:

- Establish a shared understanding of resilience, the 100RC initiative and support towards building a Resilience Strategy.

- Establish a strong and clear foundation for the resilience strategy process.

- Identify how the resilience Strategy can help stakeholders to address their existing priorities.

- Identify key stakeholders who need to be involved in the development of Seattle's resilience strategy.

- Introduce the concept and role of the Chief Resilience Officer for the City of Seattle.

4.2   Workshop Outcomes

The Resilient Seattle workshop brought together 100 participants, local facilitators and note takers, speakers and professional support for a productive and engaging event focused on building capacity, sharing experiences, learning about the interdependencies of shock and stresses and identifying opportunities for collaborating to build a more resilient Seattle. Nearly all the participants were able to attend the whole day. The success of the workshop, and the valuable information collected, was in large part due to the wide range of attendees and the quality of input they provided. This reflected a strong understanding of the complexity of urban systems and awareness of the critical roles of different players in addressing the future resilience of Seattle. They worked hard and respectfully to contribute to a positive and collaborative discussion. Engagement levels were high and all stakeholders understood the workshop activities and contributed knowledge and insights which kept the conversations flowing.

Participants at the Seattle workshop

The workshop generated wide ranging discussions on the current state of Seattle, current resilience efforts, and where future resilience efforts should focus. Participants were enthusiastic about the challenge of creating a city-wide strategy and optimistic about opportunities to be engaged and work together. The group was energized by coming together in such a large and diverse group to discuss the issue of resilience.

4.3   Workshop Agenda

The workshop agenda is provided in **Table 1**.

Table 1. Workshop agenda

Time	Agenda Item	Speaker(s)
8:30-9:00	Registration and light breakfast	
9:00-9:05	Welcome	Otis Rolley, Regional Director, City and Practice Manager, Africa and North America, 100RC
9:05-10:00	Opening Remarks	Mayor Edward B. Murray
9:10-9:45	Introduction to 100 Resilient Cities	Katya Sienkiewicz, Associate Director for North America, 100RC
9:45-9:50	Workshop Introduction	Claire Bonham-Carter, AECOM (and interactive session introduction)
9:50-10:05	Introductory Live Survey	
10:05-10:25	Interactive Session 1: What is Resilience?	
10:25-10:40	MORNING BREAK	
10:40-10:45	Video: Northwest Tap Connection Dances for Social Justice, Seattle Times	
10:45- 10:30	Interactive Session 2: Prioritizing Shocks & Stresses	
11:30-11:35	Video: Richard Royal: Piles of Broken Glass, CERF+ The Artists Safety Net	
11:30-12:35	Interactive Session 3: Evaluating Strengths and Vulnerabilities	
12:35-1:35	LUNCH	
1:35-1:40	Video: Food Justice with Solid Ground, Seattle University, Center for Environmental Justice and Sustainability	
1:40-2:45	Interactive Session 4: Identifying Resilience Building Actions	
2:45-3:00	AFTERNOON BREAK	
3:00-3:45	Panel: Leveraging City Solutions Opportunities – Lessons Learned	Sandy Tung, Manager, City Solutions, Global Delivery for US & Canada, 100RC Gabriel Scheer, Senior Strategist and Partner, frogVentures Paul Nicholas, Senior Director, Trustworthy Computing, Microsoft Corporation (*Moderator:* Otis Rolley, Regional Director, City and Practice Manager, Africa and North America,100RC)
3:45-4:00	Wrap-Up Live Survey	
4:00-4:15	Next Steps in Launching City of Seattle-100 Resilient Cities Partnership	Jessica Finn Coven, Director, Seattle Office of Sustainability and Environment
4:15-5:30	NETWORKING RECEPTION	

4.4   Workshop Participatory Sessions

The workshop included four interactive participatory sessions, and two poster exercises that allowed for additional opportunities to capture input from participants. The interactive sessions and posters are summarized in **Table 2**. The notes and results from each breakout session are presented in **Appendix E**.

Table 2. Participatory sessions at the workshop

Session	Outcome
Session 1. What does resilience mean for you?	Participants provided their own definition of resilience. Group discussion was facilitated around what resilience means to the group and to each individual
Session 2. Identify and assess shocks and stresses	Participants reviewed shocks and stresses affecting Seattle. Participants discussed interdependencies between shocks and stresses and assessed selected shocks and stresses by severity / frequency / likelihood. A report back to the plenary included the top 3 shocks and stresses.
Session 3. Assessing Seattle's strengths and weaknesses	Participants identified perceived strengths and weaknesses of key drivers of resilience for the city highlighting key issues and areas to be explored when developing the resilience strategy. A report back to the plenary included the top 3 strengths and weaknesses.
Session 4. Identifying Resilience Building Actions	Participants generated cross-cutting actions to address resilience priorities. A report back to the plenary included the top 2-3 actions identified and key stakeholders.
Missing Stakeholders Wall Poster	Participants identified which stakeholders were missing from the workshop that they thought should be involved in the future resilience strategy development process
Existing Resilience Actions Wall Poster	Participants had the opportunity to provide details of projects they are involved with that enhances resilience.

5.0   Resilience Narrative for the City

Participants considered the strengths and weaknesses of Seattle, and recognized that there are significant disparities in how well the city is performing on particular issues. Participants also helped identify and prioritize the key shocks and stresses faced by the city. Good discussions were also held around the interdependencies between departments and disciplines and the gaps and opportunities where the city (in the broadest sense) can do more to deliver co-benefits (the resilience dividend). This section discusses the resilience narratives that emerged from each module during the workshop.

5.1   Current Understanding of Resilience

Katya Sienkiewicz, the 100RC Associate Director for North America, provided an introduction to 100RC program, highlighting the aims of the project for the City of Seattle and shared the 100RC definition of urban resilience.

> "Resilience is about surviving and thriving, regardless of the challenge. Urban resilience is the capacity of individuals, communities, institutions, business, and systems within a city to survive, adapt, and grow, no matter what kinds of chronic stresses and acute shocks they experience." – 100 Resilient Cities

At the start of the workshop, participants were asked to complete a live text survey via cell phone. One of the questions asked participants to select the word they most closely associate with 'resilience' from the following list: Adaptable, Equitable, Healthy, Prepared, or Strong. The results (**Figure 1**) show that 'Adaptable' was had the strongest association with 75 percent of participants. Additional results from the live-survey can be found in **Appendix F**.
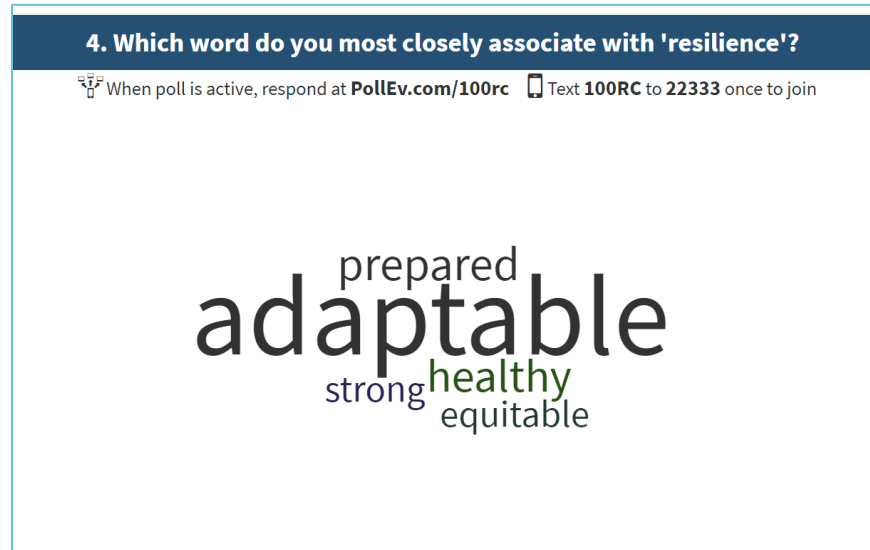

Figure 1. Word cloud generated results from pre-workshop poll. The font size is proportional to the number of votes each word received.

To gain a deeper understanding of the participants' varying views of resilience, workshop participants were asked share their own definitions of resilience during Interactive Session 1. What does resilience mean for you?

The majority of participants identified resilience as:

- Ability to 'bounce back' and thrive after a shock.

- Capacity and flexibility to prepare for the unexpected.

- Capacity to adapt to rapid change.

- Proactive planning towards an inclusive and encompassing adaptation plan.

Overall, the participants were familiar with the concept of resilience, there was good synergy between participant definitions, and most generally aligned with the 100RC definition.
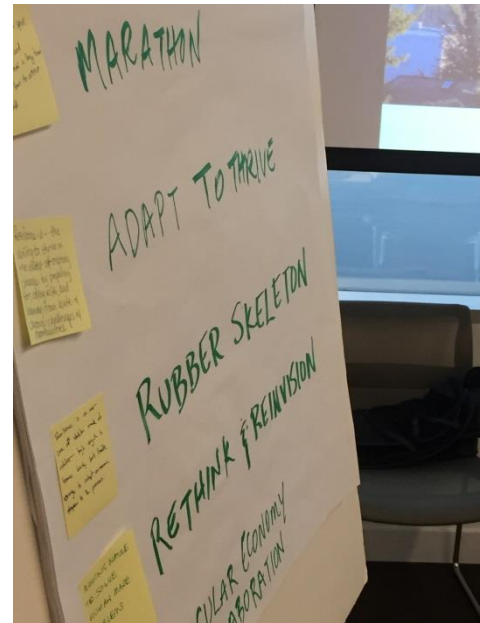
Workshop Session 1: What does resilience mean for you?

5.2   Key Shocks and Stresses
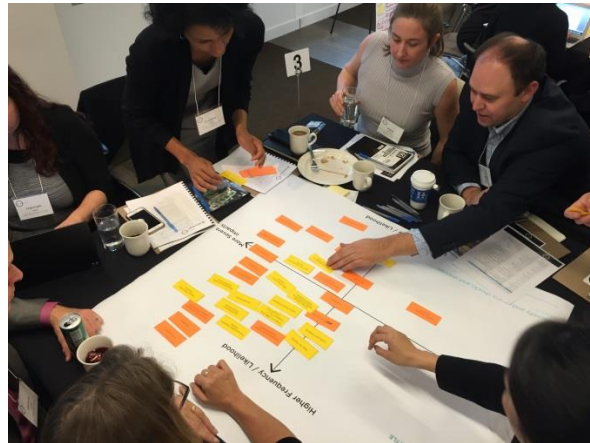
Workshop Session 2: Identify and assess key shocks and stresses

During Interactive Session 2 of the workshop, participants were asked to consider a list of shocks and stresses. Acute shocks are one-time events such as earthquakes, sandstorms, and infrastructure failures. Chronic stresses weaken the fabric of a city over time - whether on a day to day, or cyclical basis. The shocks and stresses provided to participants are listed in **Table 3**.

Additional shocks and stresses could be added or existing options removed. Participants added the shocks and stressors listed in **Table 4**.

The key objective of this exercise was to develop a collective understanding of specific shocks and stresses affecting Seattle and how they are interrelated. The participants were asked to organize the shocks and stresses by severity and by frequency or likelihood. This was an initial step in understanding Seattle's shocks and stresses and the future CRO will need to further explore these issues with a wide range of stakeholders during the development of the resilience strategy.

Table 3. List of possible shocks and stresses facing Seattle

SHOCKS		STRESSES	
Active Shooter Incident	Infrastructure Failure-Transportation	Aging Infrastructure	Homelessness
Cyber Attack	Infrastructure Failure-Sewer/Stormwater	Climate Change (Water and Electricity System Impacts)	Lack of Affordable Housing
Drought	Infrastructure Failure-Communications	Crime and Violence	Lack of Social Cohesion
Earthquake	Landslide	Economic Diversity and Vibrancy	Poor Air Quality
Extreme Heat	Pandemic Flu	Education Quality and Access	Poor Water Quality
Flooding	Riot/Civil Unrest	Equitable Access to Healthy Food	Racial and Social Injustice
Hazardous Materials Accident	Terrorism	Equitable Access to Health Care	Rising Sea Level and Coastal Erosion
Infrastructure Failure- Energy	Volcanic Activity	Gentrification / Displacement	Transportation Network Quality

Table 4. Additional shocks and stresses added by participants

SHOCKS		STRESSES	
Tsunami	Extreme weather	Substance abuse/drug addiction	Access to mental healthcare
Snow/ice storm	Economic bust	Environmental contaminants	High rates of incarceration
Windstorm		Income inequality	

The shocks and stresses confronting Seattle are highly interrelated and participants highlighted these connections. Most groups had difficulty coming to consensus on a top three individual shocks and stresses. There was a tendency to group multiple similar and interrelated shocks and stresses and select a representative title to characterize the group. Common groupings included:

- Lack of affordable housing, homelessness, gentrification, population growth (added by participants), equitable access to healthy food, education quality access, and racial/social injustice,

- Gentrification, lack of affordable housing, income inequality (added by participants), homelessness,

- Education quality and access, racial and social injustice, high rates of incarceration (added by participants),

- Education quality and access, lack of social cohesion, homelessness, gentrification, lack of affordable housing, jobs (added by participants), population growth (added by participants),

- Infrastructure failure – transportation, infrastructure failure – stormwater/sewer, infrastructure failure – energy, infrastructure failure – communications,

- Drought, Forest Fires, Flooding, and Extreme Heat (climate change being a common driver for these stresses).

Also, it was difficult for participants to rank shocks and stresses without comparing these issues to other cities. For example, air quality is not as bad in Seattle as it is in LA, and violence is not as problematic as a city such as Chicago, but that does not reduce its significance as a problem in Seattle.

The shocks and stresses listed in **Table 5** were most frequently raised as priority issues due to their current or potential impact to Seattle. Generally, it was found that shocks were less frequent, but have a high magnitude of impact. Stressors, on the other hand, were thought to occur more frequently with a high magnitude of impact.

Table 5. Top Shocks and stresses for the City of Seattle (identified in the workshop)

| Shocks	Stresses*
Earthquakes	Social and Racial Injustice
Infrastructure Failure	Aging and Underperforming Infrastructure, including Transportation
Flooding	Homelessness and Unaffordable Housing

Summarized descriptions – see above regarding grouping of multiple stresses under one heading.

5.3   Seattle's Strengths and Weaknesses

During Interactive Session 3, participants considered Seattle's strengths, weaknesses and areas for improvement against the 12 drivers of urban resilience as defined by the 100RC City Resilience Framework (CRF) (**Appendix H**). By working through the CRF, the group considered the local variability in resilience across the city, the strengths and weaknesses of Seattle, and recognized that there is significant variation in how well the city is performing on particular issues.

The participants were asked to reflect on how resilient Seattle is today and how well it performs along the 12 indicators in the framework. Each participant was given four red, four yellow and four green dots. They had to individually place a dot to indicate how well they think Seattle is performing on each of the 12 drivers (also identifying whether they were representing the public sector, private sector or civil society through initialing each dot):

- Red = Need to do better

- Yellow = Doing well but can improve

- Green = Area of strength
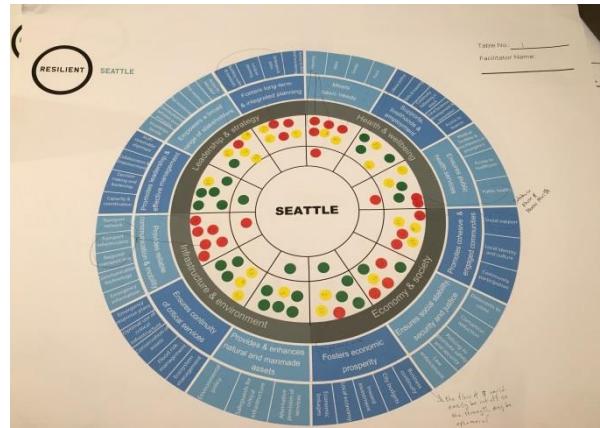
Workshop Session 3: Identifying Seattle's strengths and weaknesses

Generally, there was agreement that Seattle was doing well economically and providing/ensuring public health services, and fairly well in empowering a broad range of stakeholders. However, many participants felt that the recent economic growth was not due to City planning, and that it could be short-lived. Moreover, not all residents are benefiting from the economic prosperity and work is needed to improve performance relating to the drivers of meeting basic needs, ensuring social stability/justice, and providing reliable communication/mobility as summarized in **Figure 2**.
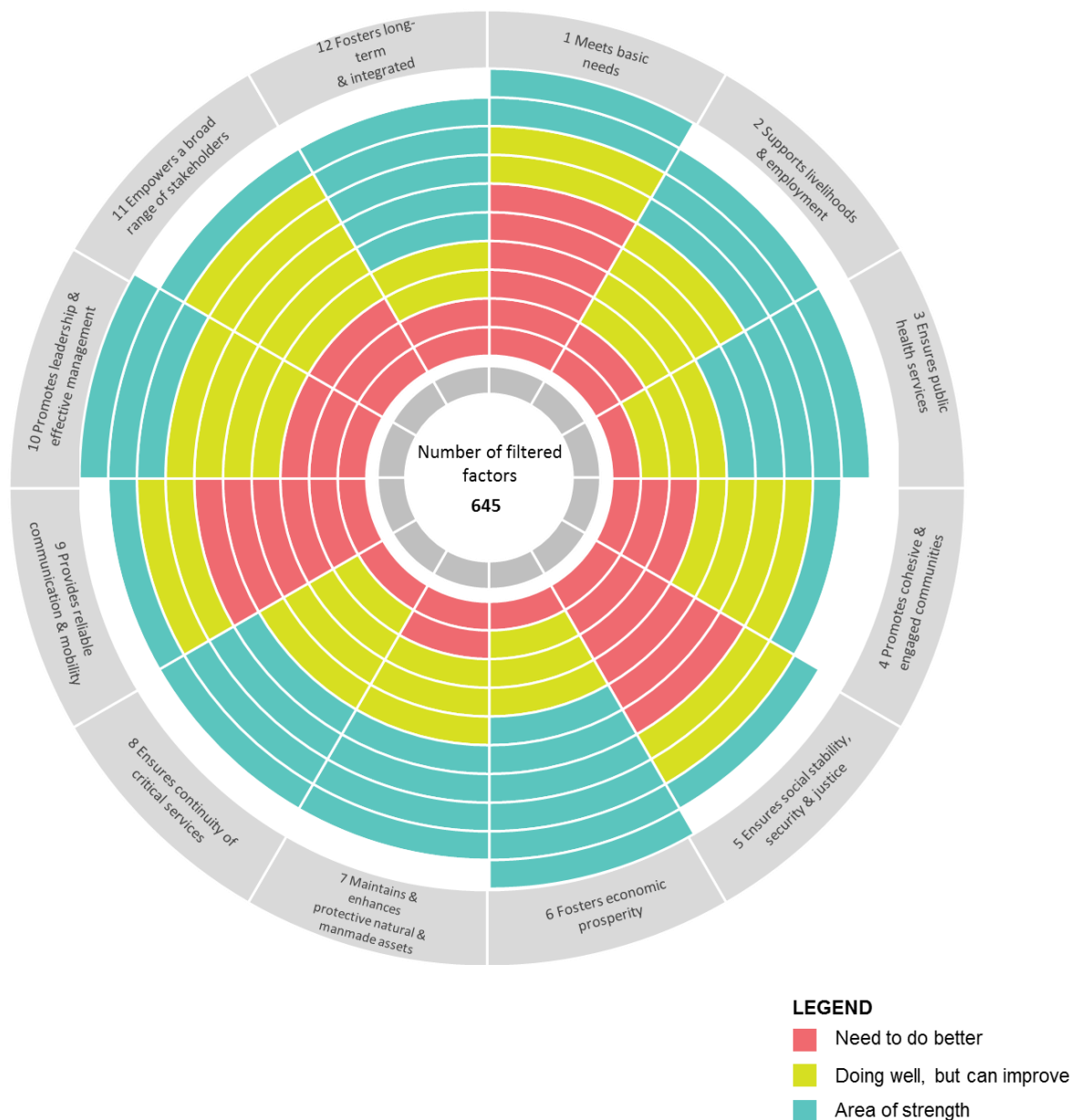
Figure 2. City Resilience Framework diagnostic exercise results

Each participant sector represented (public, private, and civic society) generally agreed on the strengths and weaknesses of the city (**Figure 3**). The attendees were comprised of 33 percent public sector, 20 percent private sector, and 46 percent civic sector. When comparing the three sectors, the private sector (B) rated the city is performing most poorly in ensuring continuity of critical services factor. The civic society sector (C) rated the city performing most poorly in promoting cohesive and engaged communities.

A. Public Sector

B. Private Sector

C. Civic Society

Figure 3. City Resilience Framework diagnostic results from the public (A), private (B), and civic society (C) sectors.

While opinions diverged on specific sub-drivers . Participants highlighted specific areas of strength for Seattle within the CRF, including:

- Seattle overall is an economically prosperous city. It is a highly desirable place to live and is attracting an increasing number of people to the area. However, not everyone is benefitting, especially people of color, low income residents, immigrants and refugees.

- The city was recognized as doing a good job of ensuring continuity of critical services, especially emergency management. However, many expressed concern that immigrants and refugees are being underserved in emergency communication.

- Seattle's overall maintenance and enhancement of natural and human-made assets was identified as strength. The City has been proactive in strong environmental policy and protecting critical infrastructure, however significant disparities in conditions across the city were noted.

Participants highlighted specific areas of weaknesses for Seattle within the CRF, including:

- Weakness in meeting basic needs due specifically to a lack of affordable housing for all. This concern was voiced by most tables.

- Concern about how current issues such as lack of affordable housing, inadequate transportation infrastructure and limited access to employment and services for some communities may impact Seattle's future economic prosperity, population growth, and competitiveness.

- Acknowledgement that despite being a prosperous city, there are deep disparities in who has benefited from this progress. Race and social justice was cited many times throughout the workshop as a challenge to prioritize in resilience planning.

- Widespread concern about the local and regional transportation network despite the recent passage of transportation funding initiatives. Congestion and poor or inequitable access to public transportation is a significant concern.

- Displacement is a growing problem as Seattle has become increasingly unaffordable.

- Seattle public schools continue to underperform nationally, despite being in an economically strong city.

- Mental health and substance abuse is becoming a growing problem and was not well accounted for in the CRF.

5.4   Identifying Resilience-Building Actions

In Interactive Session 4, participants reflected on two resilience goals and generated innovative ideas to create new resilience actions that could work at the intersection of the goals. In the first step, participants brainstormed individually about factors relating to two different categories. An example is shown in **Figure 4**. The goal was to try to generate as many factors as possible.

Category 1: What are the features of a Clean & Renewable Energy Supply?	Category 2: What are aspects of a racially and socially just city?
Ex: Electrified Transportation System	Ex: Increase employment for young people of color

Category 1: What are some features of a disaster ready city?	Category 2: What are aspects of a racially and socially just city?
e.g. emergency kits in offices; home safety measures	e.g. job training; investment in neighborhoods

Figure 4. Brainstorming Worksheet Examples

Next, a challenge, focused on increasing resilience, was revealed to the participants in the form of a 'How might we' statement. Two challenge questions were posed to workshop participants (depending on the categories they were allotted for the exercise):

- How Might We: Leverage the transition to 100 percent clean and renewable energy as a conduit to create opportunities for a more racially and socially equitable community?

- How Might We: Become the most disaster ready city in the world?

Participants then were asked to compare the factors listed by each category and to identify relationships or interdependencies between factors. From the two connected items, participants were asked to brainstorm actions that could address the challenge question. They were also encouraged to link factors that weren't obviously connected in order to try and spark off the wall ideas. An example of the exercise and results is shown below:

Question A: How Might We: Leverage the transition to 100 percent clean and renewable energy as a conduit to create opportunities for a more racially and socially equitable community?

Category 1: What are the features of a clean and renewable energy supply?	Category 2: What are aspects of a racially and socially just city?
No GHG emissions	Power is shared
Bike lanes	Race is not predictor of income status
Silent	Good listening common practice
Livable buildings	Culturally liberating
Sustainable	Less conflict
Progressive	Curious
Fewer health consequences	Good education for all
Disruptive	Access for all basic services
No fuel crisis	Easy and safe travel
Solar	Equal police treatment
Long term least cost	Culturally responsive
Nature-based	Safety net
Future	Strong
Not ugly	
Ubiquitous	
Factors in carbon footprint	
Doable	
Available	
Pedal Powered	

Action ideas generated:

- Solar (and batteries) + Affordable Housing

    o Create opportunities for "shelter in place"

    o Reduced opportunity costs (monthly bills)

    o Train residents on new technology

    o More resilient buildings

    o Potential for applications to be tied to the grid

- Electrify Port

    o All port equipment at the terminals becomes electric

    o Short haul trucks from port to warehouses

Example for Workshop Session 4 Question A

Question B: How Might We: Become the most disaster ready city in the world?

Category 1: What are the features of a disaster ready city?	Category 2: What are aspects of a racially and just city?
Concrete plan	Inclusive planning
Engaged community	All economies live in equality
Evacuation Plan	Cultural activities vibrant in city
People know what do to	Equal voice in governance
Well-maintained infrastructure	Reflective leadership
Uninterrupted access for water	Safe environment for all
Well-trained emergency response	Criminal justice system does not discriminate
Well-distributed emergency kits	Aware citizenry to confront inequitable circumstances
Uninterrupted transportation routes	Affordable and accessible transportation, housing
Identified shelters	
Early response systems	
Communication system	

Action ideas generated:

- Community-based action plans (bilingual)
- Different communication systems to reach all
    - Reaching out through different medias
    - Language needs to be accessible for all (recognize where you can partner)
- Maintain vibrancy while we upgrade
    - City invests in neighborhoods/culture as they invest in infrastructure
    - Sustain business equality
    - Cultural and economic diversity
- Small and emerging businesses prepare for earthquakes
- Job training programs to provide opportunities for resilience activities at a community-level

Workshop Session 4 Example for Question B

For the remainder of the exercise (if there was time), participants chose their favorite new actions and identified stakeholders needed to get the action off the ground. Finally, each group reported its top two to three actions to the plenary.

Workshop Session 4: Identifying Resilience Building Actions

Post workshop note: This exercise has since been performed at another workshop by the City of Seattle and the following changes were suggested:

- *The setup of questions was changed to the format of "…things you find in a…" and to include example responses. While the examples do influence the ideas people generate, it was found to be useful in spurring ideas. For example,*

  - *Things you find in a climate ready city: renewable, distributed energy, every home & business has a disaster kit*

  - *Things you find in a racially & socially just city: community policing, robust race & social justice non-profit organizations*

- *Also, the facilitator is encouraged to write down the ideas from the group popcorn session on notecards instead of list them on an easel. The notecards are colored to correspond with each category. All cards are then turned over and one from each category is randomly selected. The group is asked to generate actions to answer the challenge question based on the two idea cards that were previously drawn. The concept is that unlikely pairings may generate new and innovative ideas.*

Actions Identified

This activity provided an opportunity for participants to identify actions that could further Seattle's future resilience efforts. Some groups developed more comprehensive strategies such as:

- Develop a program that turns excess shipping containers into temporary housing on city-owned property. In order to achieve the resilience dividend, the retrofit process could focus on training and developing jobs for unemployed community members.

- Disaster preparedness planning should be performed at a neighborhood-scale. Bottom-up planning will ensure that it inclusive and culturally appropriate. It will also provide an increased opportunity to train and empower local leaders.

> **What is the Resilience Dividend?**
>
> The resilience dividend is the return on resilience investments, whether it's a financial return, or more qualitative. Such as reduced inequality or increased social cohesion. It's the idea that building resilience realizes benefits in both times of crises and times of calm.

Other less developed ideas included:

- Providing opportunities for the community to lead resilience planning and actions.

- Integrating green infrastructure, affordable housing, climate preparedness, and local family-wage jobs into capital investments.

- Creating apprenticeships and training in the clean energy industry, especially for lower income residents and people of color.

- Promoting a culture of compassion.

- Create personable and fun community events that incentivize attendance and participation.

- Planning for disasters in way that is inclusive and culturally appropriate.

- Connect for-hire drivers (cabs, Uber, Lyft) with communities to discuss emergency evacuations and transportation options.

- Building social cohesion.

All results and notes from Interactive Session 4 are provided in **Appendix E**.

6.0   Preliminary Overview of Plans, Studies, and Initiatives

6.1   Existing resilience efforts

There are a large number of initiatives in place to improve the resilience of Seattle, including initiatives led by community-based organizations, federal, state and local government, NGOs, research institutions, and the private sector. **Table 6** lists a very few of the efforts in the City of Seattle in relation to the CRF drivers. It is important to note that this list is not a comprehensive list of resilience efforts - it is a sample of the existing efforts. The next phase will work to expand this effort.

Table 6. Initial list of existing resilience efforts in Seattle (non-comprehensive)

CRF Driver	Initiative or Program	Owner of initiative
Health and Wellbeing	2-1-1 Community Resources Online (CRO) Database, 2016	Human Services Department, City of Seattle
	Basic Human Needs Project, 2014	Columbia Legal Services
	Fair Access to Hospital Care Campaign, 2016	Columbia Legal Services
	Community Supporting Safe and Stable Housing (CSSSH) Investment Plan, 2012	Human Services Department, City of Seattle
	Best Starts for Kids, 2016	King County Council
Economy and Society	Commercial Affordability Plan, 2016	Mayor Ed Murray, City of Seattle
	Advance our Infrastructure and Built Environment as Economic Catalysts Action Plan, 2016	The Seattle Economic Development Commission
	Grow Seattle Program, 2015	Office of Economic Development, City of Seattle
	Only in Seattle Initiative, 2015	Office of Economic Development, City of Seattle
Infrastructure and Environment	Seattle Climate Action Plan, 2013	Office of Sustainability & Environment, City of Seattle
	The PNW Resilience Challenge, 2015	Sustainable Seattle
	The Resilient America Roundtable, 2015	The National Academies of Sciences, Engineering, and Medicine
	Community Power Works, 2010	Office of Sustainability & Environment, City of Seattle
Leadership and Strategy	Housing Affordability and Livability Agenda (HALA), 2016	Office of Planning & Community Development, City of Seattle
	Careers Pathways Program, 2012	Office of Economic Development, City of Seattle
	Seattle's Comprehensive Plan (Seattle 2035), 2016	Office of Planning & Community Development, City of Seattle

Throughout the workshop, participants had the opportunity to identify resilience-building work their organization currently or previously conducted. The results from the Existing Resilience Actions Wall Poster that was populated by the participants at the workshop are listed in **Appendix I**. However, this list mostly focuses on organizations that are participating in resilience activities, and not on actions.

7.0   Priority Stakeholder Recommendations and Engagement

By having representation from a wide range of stakeholders, an excellent foundation has been established for the resilience strategy (**Figure 5**). Ongoing and meaningful stakeholder engagement is crucial as the resilience space in Seattle is not a blank canvas, a number of agencies have made significant progress but their work may not yet be as integrated and linked as possible and innovative and effective actions may emerge by working at the intersection of these efforts. This is a critical issue and points to the importance of creating a resilience strategy for the city.
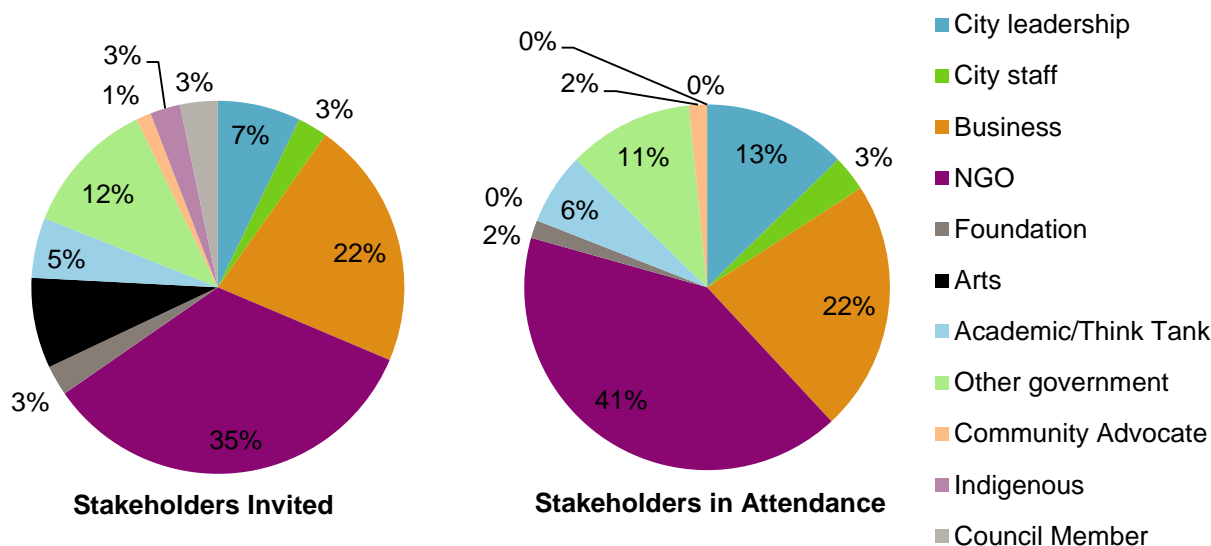

Figure 5. Percent range of stakeholder sectors (invited vs. attended)

A full list of workshop attendees is provided in **Appendix C**. Additional stakeholders that were recommended by the workshop participants via the Missing Stakeholders poster is provided in **Appendix I**.

7.1   Representation from diverse communities

Thirteen percent of the workshop attendees were from organizations representing communities of color, low-income resident, immigrants, and limited English-speaking proficiency residents. Participants represented the following organizations:

- Seattle Public School

- Food Empowerment Education and Sustainability Team (FEEST)

- Environmental Coalition of South Seattle

- Storytellers for Change and Seattle Immigrant & Refugee Commission

- Bikeworks & LGBT Commission

- Pride Foundation

- Fair Work Center

- Latino Community Fund of Washington

- Seattle Chinatown International District Preservation and Development Authority (SCIDpda)

- Chinese Information & Service Center (CISC)

These communities are especially vulnerable to stressors and shocks due to a history of institutional racism and classism and other forms of discrimination. It is recommended that additional time and effort is dedicated towards engaging these communities as well as youth, LGBT people, seniors, people with disabilities, and those with mental health issues.

It is recommended that cultural, spiritual, and religious groups are specifically engaged, as there may be opportunities to learn from existing cohesive communities and bring in their existing work to the resilience strategy.

While the participants reflected a diverse array of sectors and interests, they did not effectively represent Seattle's diverse community. Participants were asked to fill out anonymous Inclusion Cards that provide information on gender, race, age, and residence. Not everyone completed an Inclusion Card, but the results are shown in **Figure 6** though **Figure 8**.
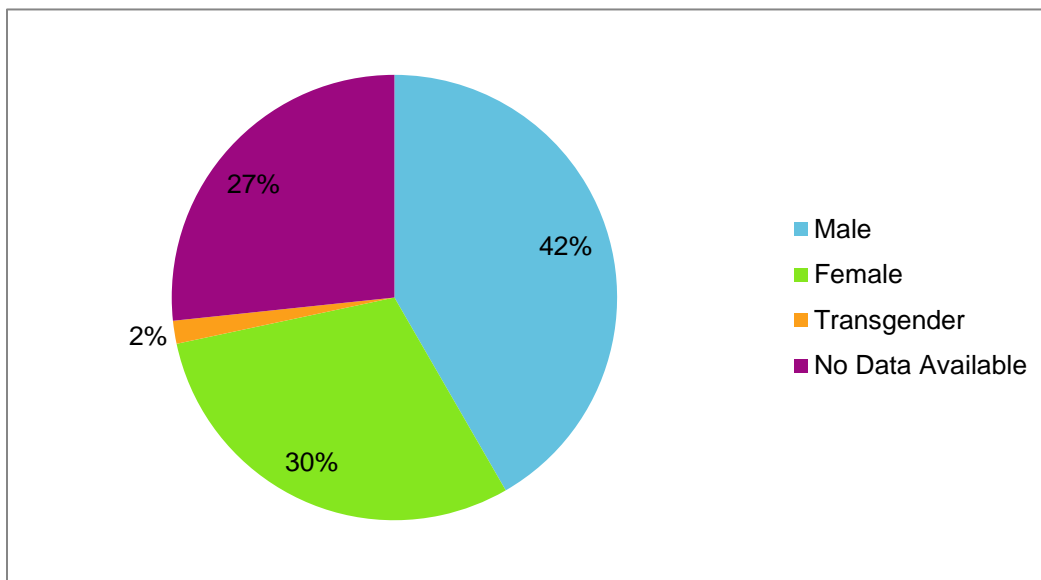

Figure 6. Percent gender distribution amongst workshop participants
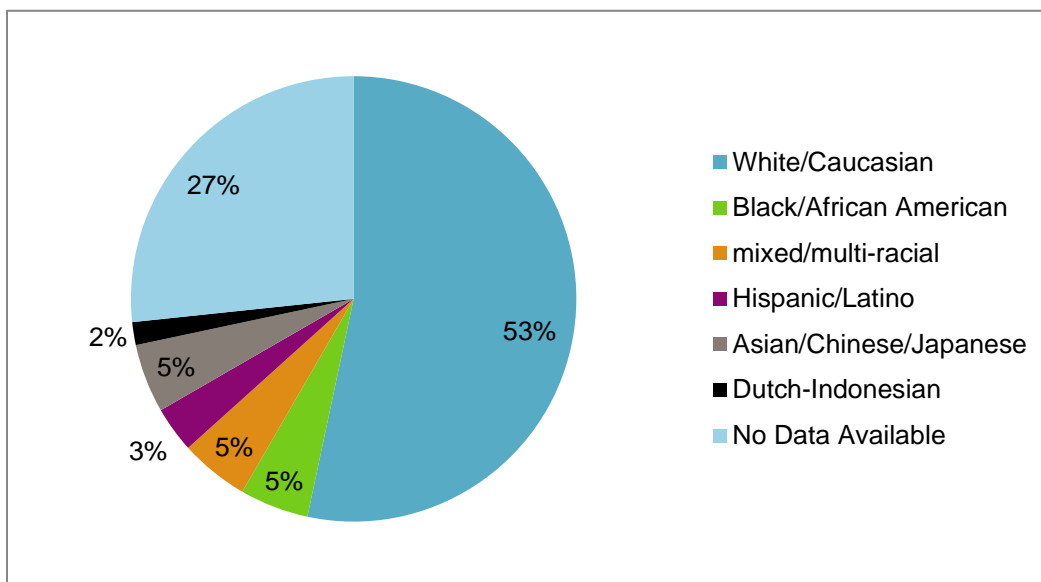

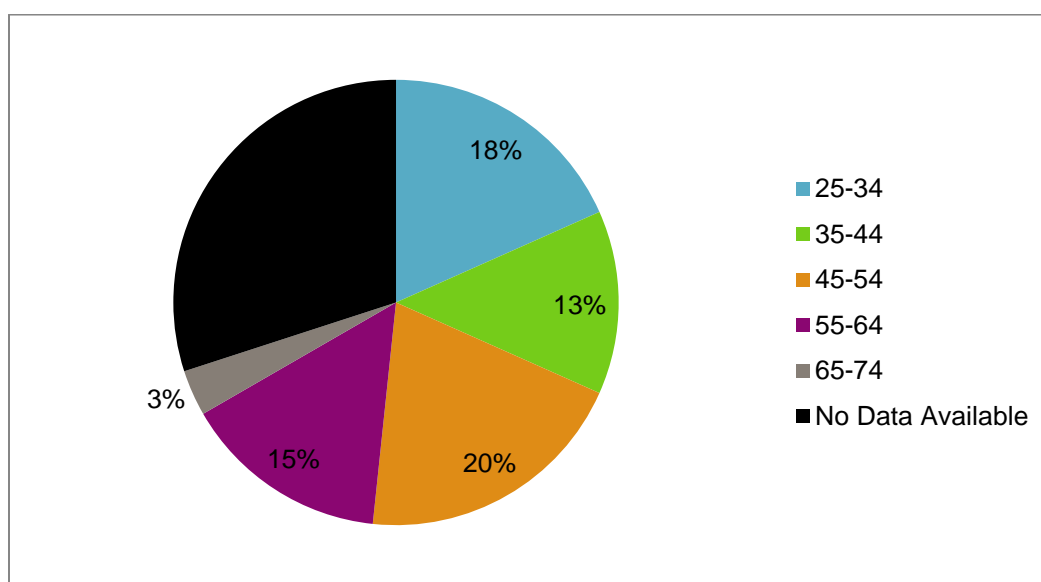Figure 7. Percent race distribution amongst workshop participants

Figure 8. Percentage distribution amongst workshop participants

Priority must be placed on creating an inclusive and community driven resilience planning process. The Chief Resilience Officer will need to prioritize continuing engagement with the workshop participants as well as a much wider group of stakeholders.

7.2   Collaboration with state and local government

Representatives from many departments of the City of Seattle participated in the workshop as attendees or support staff (note-takers or facilitators). Maintaining this level of participation and commitment within the City will be critical for the success of the resilience strategy.

A priority area of collaboration between the 100RC strategy effort and the City of Seattle is the ongoing Equity and Environment Initiative (EEI). The Seattle EEI focuses on solutions that come from the communities themselves. By providing a framework with measurable actions, the City has taken an unprecedented approach to advance environmental equity in Seattle. Moving forward, the resilience strategy should consider how EEI goals and actions can be expanded across the city and prioritized for those most in need. Additionally, the EEI philosophy and agenda could serve as a model for other stressors the city faces such as housing affordability or access to healthcare, public safety and quality education. *The EEI has been highlighted in a textbox on page 6.*

7.3   Infrastructure, property and private sector

The following groups from infrastructure, property, and private sector had representatives at the workshop:

- City of Seattle, Department of Transportation
- McKinstry
- City of Seattle, Office of Planning & Community Development
- Seattle City Light

- Sound Transit
- Seattle Public Utilities
- King County & Seattle Planning Commission
- Vulcan

Expanded engagement will be needed as these industries play a major role in shaping and servicing many of Seattle's communities.

8.0   Additional insights and resilience opportunities

8.1   Acknowledgement of existing efforts

As briefly summarized in Section 6.1, there are already a wide range of resilience initiatives being led in the City of Seattle as well as many other actions led by community based organizations, other NGOs, and the private sector not recorded here. From the workshop, it was clear that participants are eager to work together to continue to advance resilience. There was recognition that the 100RC program offers an opportunity for an integrated approach and the value of a CRO working across organizations and sectors to develop a resilience strategy, building on the work already being undertaken.

Once the CRO is in place, the Stakeholder Engagement Plan will be the next priority to keep stakeholders involved throughout development of the Resilience Strategy.

8.2   Key Resilience Opportunities

Although many challenges were highlighted during the workshop, attendees noted that there may be an opportunity for concentrated improvement or significant overhaul. Some of the challenges and opportunities highlighted by the workshop included:

Table 7: Example of challenges raised

Challenge	Opportunity
The most vulnerable groups (people of color, immigrants, low-income residents) will be at highest risk due to a decreased capacity to prepare for, respond, and recover from a shock.	Many of these communities are already well organized, so there just needs to be a continued and deliberate strategy to include these groups in resilience planning efforts. Additionally, Seattle has taken massive strides recently in diversifying their leadership. This will hopefully help the city understand and reach out to communities.
Acute shock (major event, such as an earthquake)	After a disruptive event, concentrated improvement or significant overhaul of specific systems can take place that plan for a more resilient future.
Aging and an over-burdened transportation infrastructure, affecting congestion, commute times	As Seattle updates improves its transportation network, it can include more affordable and accessible transportation options for all its citizens.

8.3   Other feedback from live in-workshop poll

At both the beginning and the end of the workshop, participants were asked to select which infrastructure system they thought the CRO should focus on:

Table 8: Reponses to live poll question: Which infrastructure system should the CRO focus on?

Infrastructure system	Percent Before	Percent After
Communications	6	2
Transportation	21	38
Stormwater	6	-
Energy	12	2
Water supply	3	-
Community cohesion & organizing capacity	52	58

This reinforces the importance participants put on community cohesion issues and transportation – a viewpoint which was amplified by the end of the workshop.

Finally, at the end of the workshop participants were asked which planning approach and challenge the CRO should prioritize:

Table 9: Responses to live poll question: Which planning approach should the CRO prioritize?

Planning Approach	Percent
Integrating resilience in city planning process	31
Community driven planning with race and social justice focus	10
Collaborating with other governments	22
Securing funding to implement projects	16
Building broad based support – residents and business	20

The responses to the question regarding planning approach shows strong support for mainstreaming resilience generally into city planning process, for regional collaboration and for further stakeholder engagement. These will be foundational elements for the resilience strategy development process moving forward.

Table 10: Responses to live poll question: Which challenge should the CRO prioritize?

Priority Challenge	Percent
Race and social justice	33
Homelessness	9
Affordable housing and displacement	19
Climate change	12
Seismic risk	21
Health	2
Education	3
Water and air quality	2
Access to healthy food	-

The responses to the question regarding which challenge should the CRO prioritize reinforces the importance for the CRO in dealing with the underlying stresses that Seattle faces regarding race, social justice and housing issues.   Environmental shocks were also seen as important however, with seismic risk and climate change receiving significant support. The interdependence between these shocks and stresses will be a critical part of the CRO's work, ensuring that those most vulnerable in the community from a social stand point, are appropriately protected from other hazards such as earthquakes and flooding.

9.0   Next Steps

A Chief Resilience Officer (CRO) will be appointed for the City, who will lead the development of the City's resilience strategy and its subsequent implementation. 100RC provides all cities within the 100RC network a common framework for developing their Resilience Strategy while allowing the influence of each city's unique local context. The next part of the process involves two main phases:

9.1   Phase I Establishing the foundation

Phase I is an accelerated, 2 to 3 month process through which cities engage broadly and undertake a preliminary resilience analysis to identify key priority areas (called Discovery Areas) that have the potential to profoundly influence the resilience of their city in the coming decades.

Phase I includes:

- Appointment of the Chief Resilience Officer (CRO). This process will be led by 100RC and the City of Seattle. This process is already underway, with a start date likely in early 2017.

- Strategy Development Process Launch.

- Stakeholder Engagement Plan. This will be crucial for continuing engagement with the diverse group of stakeholders who participated in the workshop, and for integrating additional stakeholders into the Resilience Strategy process.

- City Context and Resilience Assessment. This assessment will include an evidence based review and prioritization of the impacts of shocks and stresses on Seattle. It will explore the interdependencies between shocks and stresses and the potential to create a resilience dividend through better planning and response to future shocks and stresses, while also assessing the resilience strengths and weaknesses of Seattle following input from a wider group.

9.2   Phase II Strategy build-out

Phase II reviews the key Discovery Areas selected in Phase I in detail. This 4-6 month phase involves an in-depth analysis, broad engagement and targeted plans for implementation.

10.0 Conclusion

The results from the workshop show that Seattle is a relatively strong city in terms of economy, health, and environment; however, issues such as income inequality, homeless and lack of affordable housing, and environmental quality are significant problems. Some of the most commonly referenced themes from the workshop include the following:

- **Seattle needs to do more in order to empower underrepresented people and communities.** Addressing racial and social injustice is necessary to enhancing resilience across all domains. Session 4 developed example actions that address racial and social injustice and make Seattle more resilient. One action item that resulted from the exercise was to perform disaster preparedness planning at a neighborhood-scale. Bottom-up planning will ensure that it is inclusive and culturally appropriate. It will also provide an increased opportunity to train and empower local leaders.

- **Some stresses and shocks disproportionally affect different people and different neighborhoods.** This made it difficult to rank and evaluate problems. For example, some people thought that Seattle has great access to healthy food, while others noted that this is not true in every neighborhood. A city-wide versus neighborhood comparison could be helpful to assess how Seattle is achieving its resiliency goals across the entire city.

- **Although Seattle is prospering economically, not all residents are benefiting.** Racism is the driver of economic insecurity, and many tables noted that the City needs to prioritize race and social justice. Race and social injustice acts as a threat multiplier resulting in people of color and those with lower incomes often living in areas with higher pollution levels. The most vulnerable groups (people of color, immigrants, low-income) will be at highest risk due to a decreased capacity to prepare for, respond, and recover from a shock. The vulnerability of specific groups will need to be better understood to improve their ability to 'bounce back', particularly given the cumulative effects associated with the interrelationship between shocks and stresses.

- **Homelessness and lack of affordable housing were two of the largest resilience issues identified in the workshop.** It was noted that not taking care of people undermines who we are as a society.

- **There are large-scale shocks that will occur in the future that will have unknown consequences to the city.** For example, statistics show that a large magnitude 9 Cascadia subduction zone earthquake is currently overdue for the Pacific Northwest. How the city prepares before the event occurs will have large implications for how successfully it will recover.

It is important that residents are well-informed on how to personally prepare and respond in the event of any shock or stress. Of particular concern are for communities of color, low-income, and immigrants with limited English proficiency. It is important that the City better understand the increased vulnerability of these specific groups, where they live, and what languages they speak in order to ensure their ability to prepare and recover.

The workshop was a critical first step towards developing Seattle's resilience strategy with a major achievement already made in engaging a diverse group of stakeholders. The support offered by 100RC to develop a Seattle resilience strategy offers the city an opportunity to safeguard its future, building on the resilience work already underway.

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